

DL
Stadel

P 86

Catalogue

- 1967 133° 22'N 124° 45'W Pacific Ocean 23 Jan
648 *Larus argentatus*? ♀ 12x5
USNM 5364 Color notes Very Fat
34° 15'N 126° 20'W 8 Pacific Ocean 8 Feb
649 *Larus argentatus* ♂ Testes 2x4
USNM 5376 Color notes Medium Fat
34° 05'N 121° 44'W Pacific Ocean 9 Feb
650 *Fulmarus glacialis* Color Notes Very Fat
USNM 5371 Very Fat
~~651 *Larus argentatus*~~
Pacific Ocean 32° 30'N 122° 23'W 12 Feb
651 *Larus argentatus* Color Notes Medium Fat
USNM 5376
Pacific Ocean 12 Feb
652 *Rissa tridactyla* Color notes ♀ 5x12
USNM 5387 Granular
Pacific Ocean
653 *Coronhinca monocerata* Color notes 12 Feb 1967
USNM 5375 Extremely Fat ♀ Minute
Pacific Ocean 32° 27'N 122° 19'W
654 *Fulmarus glacialis* Color Notes 12 Feb 1967
USNM 5379 Light Fat ♀ 5x12
Pacific Ocean 31° 39'N 123° 22'W
655 *Phaethon rubricauda* Color Notes 13 Feb
USNM 5391 ♀ Ovary minute
Band # 615-09794
Pacific Ocean 31° 38'N 123° 30'W
656 *Oceanodroma leucorhoa* Color Notes 13 Feb
USNM 5392 Testes minute & white
Pacific Ocean 31° 38'N 123° 33'W
657 *Oceanodroma leucorhoa* Color Notes 13 Feb
USNM 5382 Testes minute & white
Pacific Ocean 31° 38'N 123° 44'W
658 *Phalaropus fulicarius*
USNM 5397 ♀ Ovary 7x3
Ovary slightly granular

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Catalogue

- Pacific Ocean 31° 38'N 123° 33'W
659 *Oceanodroma leucorhoa* Color Notes 13 Feb
USNM 5394 ♂ Teste minute
Pacific Ocean 31° 38'N 123° 33'W
660 *Coronhinca monocerata* Color Notes 13 Feb
USNM 5398 ♀ Ovary 3x15 Molting head & neck
Pacific Ocean 32° 26'N 122° 06'W
661 *Oceanodroma leucorhoa* Color Notes 12 Feb
USNM 5374
Pacific Ocean 32° 27'N 122° 18'W 12 Feb
662 *Rissa tridactyla* ♀ Color Notes
USNM 5377 Teste Minute Ovary Minute
~~Pacific Ocean 32° 27'N 122° 18'W 12 Feb
663 *Rissa tridactyla* ♀ Color Notes
USNM 5377 Teste Minute Ovary Minute~~
Palmyra Island Pacific Ocean 17 March 1967
663 *Sterna fuscata*
USNM 6962 ♂ Teste 8x5 & 7x4
Primaries 1-7 new, 8-10 old. Tail all New
Sec all new. No body molt.
Motu Upou (Christmas Is) Pacific Ocean 23 March
664 *Puffinus pacificus* ♀
USNM 7010
665 *Puffinus nativitatus* ♂ Teste 3x2
USNM 7012 New feathers.
666 *Puffinus pacificus* ♀ Ovary 4x10 gran
USNM 7009
667 *Pterodroma alba* ♂ Teste 14x8
USNM 7013
668 *Puffinus pacificus* ♂ Teste 14x8
USNM 7011 Light Fat Right 2 black

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P88

@ateloque

Xmas

(Motu Upua) Christmas Atoll 23 March
669 Puffinus pacificus ♂ 271gms.
USNM 7011 Teste 14x8 L, Right 3x2 Black
Pri & Sec & Tail All new feathers.
Light fat.

670 Phaethon lepturus ♀ 214.5gms
USNM 2723 ^{ovary} minute
Feathers all new. No fat.

671 Phaethon lepturus ♂ 309.3gms
USNM 2722 Teste 12x5
Feathers All new. Light fat

Starbuck Is. Pacific Ocean 3 April
672 Steena fuscata ♂ Teste 5x2
USNM 7082 149.7gms. Light fat

673 Steena fuscata ♀ 3 April
USNM 7086 Ovary 12x5 159gms

Fanning Island 20 March Pacific Ocean
674 Numenius tahitiensis ♂ Teste 2x4
USNM 7006 392.1gms

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Journal

P 566

Feb 6 1967

Brian Herington, Dave Burkhalter
and myself left Long Beach Naval
yards for cruise aboard the
Shearwater. We left port about
1300 and head up the California
coast. ~~We saw~~
We saw Surf scooters in
the bay before leaving. We stood
watch until sundown and then
quit for the day.

Feb 7 1967

We stood watch all day but
did not collect any birds. We
saw different types described in
a separate account.

We did not collect any birds
today.

8 Feb 1967

We had a very boring day
today collecting a Herring gull
and a Black-legged Kittiwake. Most
of the day we only saw the same
gulls.

I had to move in with Brian
and Dave so other crew members
could sleep in my room.

I collected a bird so I could
have something to skin tonight, plus
I wanted some practice at shooting.

9 Feb

Generally activity was very
slow all day for watching birds.
Gulls followed us all day and Black-
footed Albatross followed.

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P 631

Journal

22 March Arrived Christmas Island 1000
We came ashore & set up camp
in the officers club. Dudley Cook
stayed on the ship so we were
without a camp until someone
found a way to get inside &
open the back door from the
inside. Our quarters have rugs
on the floor & is very comfortable.
Myself, Frank Smith, Bob Tison
Vincent Bass, & Mike Scanlon went
to Motu Tabu to survey & band
birds. We banded Wedge-tails &
Phoenix Island Petrels until 2200
and returned to camp. We banded
500 Wedge-tails and 400 Phoenix Island
Frank tried to band Hawaiian
Noddys and Fairy Terns but the
moon was full & he could
not catch them.

The rest of the crew went
to Cook Island to survey. They
found out Sooty Tern large chicks
and hundreds of Hawaiian Noddys on
eggs. They returned at 0200 on
the 23 and banded 300± birds.
Christmas Island Shearwaters &
Phoenix Island Petrels were
breeding.

23 March

All ten people went to Motu
Upua to band birds and take
blood samples. We collected 150
blood samples and banded about
1500 birds. We arrived back
at New London about 0200.

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Journal

24 March

Tison, Smith & Scanlon went
to the ship to spin blood & stop, on
the way back to the island,
at Cook and measure eggs.
All the rest of us went to the
airport & Isles de Lagoon, Moorea
Lagoon and around to Wairua
Poland. It rained generally a day
of messing around. We saw
nesting BFB, RFB, GF, Blue-G Noddies,
Possibly Grey-backed Terns, and found a nest
of the infamous King Island Warbler.
Everyone messed around until
1900 when we left for banding.
We got lost on the way over &
ended up on the back side of the
island & then having to pull the
raft over 1/4 mile of sand
bars. We banded until 2300,
then returned to the New London,
loaded our gear & left for the
ship. We had everything stowed
away by 0130 and retired to
our snugly little pads.

25 March

We left Christmas about 1000
for Jarvis Island, after 3 restful
days at Christmas. We only had
the Rand Rover for one day
so we were limited in our work
on the main island.

23

23 March

Wedgetails
Motu Tabu (Christmas)

b 35

We banded 500 birds on the island. At the end we were picking up 3 birds to find one to band. There was probably 1000 birds on the island.

I checked brood pouches on birds and only found one bare brood pouch in 40 birds. I also checked burrows and only found 2 chicks which were about a month old. Other chicks were flying. I could not tell young chicks by plumage but I think there were over 8 chubbies with shorter fls. All birds were banded as adults except for a few birds which were in sub-adult plumage but not flying. Probably 1-200 of the birds we banded were sub-adult birds.

I observed two birds in pre-copulatory behavior, one mounting the other for over a minute but no copulation took place.

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23 March

Wedgetails
Motu Upou

P 639

I banded 1301 birds and only found one 251 day old chick and one egg. Half the birds I banded were pulled out of burrows, but a most being in pairs just sitting in burrows calling. Copulatory behavior was observed but no copulation. Popa

Population numbers were far less than Phoenix Islands & even less than Christmas Islands.

24 March

Barry & I checked molting 65 birds which we were banding. Sixty ~~four~~ birds had the brood pouch covered one was partly covered and one bird sitting on one egg was bare. In all 65 birds the plumage was new. The secondaries were the newest or only within the last few weeks. The primaries were new but it was obvious from wear that they were molted before the secondaries. In all but one bird, it appeared like the brood pouch was losing feathers.

Of these 65 birds 44 were found in burrows, 330 separate burrows were checked with only one egg being found. One egg was found on March 23 while banding. Of the 30 burrows checked with birds, less than half were completed & ready for nesting. Over 100 other new burrows were checked. The

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1967

Wedgetails

635

23 March 67

most obvious thing about burrows on both islands is; burrows were in the process of being dug, most ~~being~~ burrows were only 2 ft deep or often less.

These new burrows were still getting deeper yet and had not levelled off & started back up. Wedgetail burrows pulsed for nests go down, level off & the for back end starts back up.



Example.

Digging was observed on several occasions, one bird or two sitting in a burrow (moaning) would kick with either leg & lay on it side at a 45° angle. Copulatory behavior was observed twice but no actual contact.

X

PL 36

22-

23 March

Phoenix Island Shear. Moto Tabu

We banded ~~over 3000~~ ³⁴⁴ birds on Moto Tabu last night. Of this 344 birds 102 were chicks. Most of the chicks were feathered out or we did not band them there were probably 200 chicks and about 700 more eggs being incubated. The total young raised is about 300. Broken & rotten eggs were common, indicating this species is not a very successful breeder on the island (percentage wise).

Phoenix Islands nest on top of the ground in a dug out place under any type of vegetation. Some nests were even covered with dirt. Disturbance of any sort, such as birds walking by could cause abandonment of the nest as well as climatic factors. These eggs were all white and after left untended. Adults are docile & when released after banding they will return to the egg & start incubating. They rarely only rarely rub on an egg, merely sit quietly & in wonderment over the wonderful event which has occurred to them in the form of an egg.

Motu Upou

We banded birds & kept breeding data for the island were banded. There are birds on eggs & large chicks within 3 weeks of flying. Phoenix Islands were easier to band in the afternoon or evening, before it gets dark. That is night.

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Phoenix Island ShPT

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Motu-Tabu

They sit cackling on their nests or under vegetation. It is easier to see them during the day, and easier to catch them since there is very little avoidance of humans. They seem to be a very stupid bird. This species was common on Motu Tabu & Motu Upua. They seemed to be at the peak of their breeding season.

Birds Handled					
Adults	w/ch	OE	OZE	Nestlings	Total
776	49	138	1	138 245	1209
	x 3	x 3	x	x 6	
Corrected	147	414	3	1470	2034
Total Nests				4354	

Of the nests we collected data from by banding, 56% ~~were~~ nestlings, about 31% ~~had~~ were on eggs, about 11% were with small chicks. These data actually don't show the status of the breeding population, since at least as many chicks without parents were too small to band as there were waiting bandable.

We probably only covered 1/3 of the nests. By multiplying 1383 times its w/ch & on eggs & 213x nestling I think a population estimate can be arrived at. This would be a minimum figure for estimating population numbers.

Nests now	2100
Total nests	2500
Birds now	5000
Total population	7000 ± 7000
These figures assume Phoenix	

Christmas Is Shearwater
Motu Toba

a total of 56 were banded of which 18 were chicks. The nests under brushy cover. Their tolerance to light must be lower. They select nesting sights half way between Phoenix Islands & Wedgetia.

Population

Motu Toba	3000 1000 300
Motu Upua	2000 - 5000

Nests are under dense vegetation and occasionally under dirt if possible. The nest under logs, boards, and in hollow logs. There is some leaves and nest material used.

We sat on Motu Upua and watched Christmas Island come in to the island about dusk; they come back to the island in a steady stream. I am sure this species is like Wedgetia in regard to numbers of birds landing on the island on a moon lit night. Breeding birds on eggs or with chicks probably come to the island regardless of the moon. Mated birds without young or eggs may avoid the island when the moon is full. Perhaps it is only on Kure that birds avoid or leave the island when banders approach the island. I am sure more birds fly around the islands when the moon is full. It does not seem like we saw all the birds sitting on the island that we saw approach at sunset.

The following is a list of the
 names of the persons who have
 been named in the above
 report, and the names of the
 persons who have been named
 in the report of the
 committee on the
 subject of the
 same.

Nestlings		Eggs		Total	
N. t. t. b.	2.6	3.3	13	10	
N. t. l. p. a.	8.5	10.5	70.5	60	
Totals	11.1	81.9	83	71	292

There were ~~173~~¹⁷³⁴⁵⁶ nests that we know of from Banding on the two islets. The only banded birds from 1/3 of the total nests of that money. Leaving a total of 600± nests.

We sat at sunset & watched a steady stream of Ch. I.S. return to the island. I am sure there are ~~over~~ less than half the species breeding now, many adults were sitting around calling and piping to breed. There are only half as many breeding there as a total of 1200 nests are found on the island each year.

Population Estimation	
Nests at Present	600
Birds present now	2600
Subadults	2000
Total population	4600-5000

Ewas. They guaranteed to go
 probably about for the island
 No. 117 returned and was buried
 on Motu Tabu & returned to Motu. Ewas
 Motu Upua & returned on Motu Tabu
 Manula L. & " " Motu Upua

	E 12 H	E 12 A	Nesting	OE
Motu Tabu	26	3	13	10
	8	6	0	1
Motu Apou	88	16	70	60
	119	17	83	71

Total 292

Hawaiian Noddy. Christmas Is.

Nesting is just starting with birds on eggs and 10-25% new nests without eggs. I did not see any young birds.

Motu Apou - 1200± nests

Moty Tabu - 930± nests

They nest in Messerschmidia or Scaevola, but prefer the former. Nests are composed of Scaevola & Boerhavia. Their nests are always wet and damp, possibly partly due to decomposition of leaves, the leaves giving the moisture and hold this moisture since nests are in shaded areas.

This species is very shy & hard to band or work with, consequently very little is known about its ecology. Nests on the ~~low~~ ^{low} the the islands on Christmas are about 2-15 ft depending on the tree or nesting site available.

Red-breasted Lorikeet

None were seen. Dudley Cook said this species was exploding in numbers at the expense of the Line Island Warbler. It is easy to see that this species would increase in number with more coconuts being planted all the time. New Coconut groves are ideal Lorikeet habitat after coconuts start bearing fruit. These areas are interspersed with Messerschmidia & Scaevola (The optimum habitat for this species).

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Common Noddy

Motu Taba -

Only 10± young were seen which were over a month old. Nests were present which had eggs present. Nests were on the ground with various materials used for nest material.

Nests 50
Population 200±

Motu Upou -

Nests were mainly on the ground or in coconut stumps. Various types of habitat were utilized for nest sites. The site most utilized was under coconut trees with eggs ~~under~~ on old coconut fronds & on the ground. Noddies seemed to select this site for because of favorable nesting site, but perhaps it was cooler than out in open areas.

Young chicks 2+ days old were found on all parts of the island but no older chicks were found. All other nests had eggs. There were 300± nests on the island with about 20 young chicks.

Population
Nests 300±
Population 700±

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Red-tailed Tropic bird.

P 641

Christmas I. Motu Taba

Three or nestlings were found on Motu Taba, all were 70+ days old. 18 Jan birds were found seen displaying over Motu Taba about 1500. I also saw two adults land near chicks. No other birds were seen on the atoll.

Blue-faced Booby

We found nests around the sides of the lagoon. Two small downy chicks were found and two nests with eggs. Numbers of nests were less than when I was here in June of 1965. Blue-faced Boobies nest over a long period with the peak in breeding occurring during one or two months.

Red-footed Booby

One nest with a small downy chick was found on Motu Upou. ~~Downy~~ chick & eggs were found on our trip to South east point. They were around the lagoon. No information is available to determine whether there are stragglers or is an indication of the total breeding population. All that can be said is there were eggs and chicks on the island.

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Fairy Tern (Christmas)

Fairy Terns nests on all
three islands. The nests consist of
a branch on which eggs will set.
Two small chicks were seen with
the other nests consisting of just
eggs. Of the birds nesting the
young or eggs were common.
Eggs were measured on Cook Island.

Grey backed Terns

An occasional pair or
small group were heard flying
over heads. A colony was seen
over the lagoon. We could
not tell if they were nesting, but
since they nest slightly earlier than
Sooty Terns their nesting cycle
is probably over and or large
chicks are present.

Blue Grey Noddy

They roost on Moku
Tabu & Upon but no nests were
found. They could be heard calling
over head all evening while
we landed.

Great Frigate

Adults roost on Moku Tabu &
Upon. A nesting colony was
seen on one island at the side of
the lagoon. No young or eggs
could be seen and the island was
not visited. Males with inflated
pouches were observed, probably

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White-throated Storm Petrel Christmas Is

Two birds of this species were
seen. One on Moku Upon & one at
the lagoon. No other data
is available for this species.
~~Probably both were seen on a long
beach on the north side of the island.~~
Shore birds.

No indication of this number
for this group as were taken.
Golden Plovers were molting into
breeding plumage. Ruddy Turnstone
flocks were seen in several areas.
Bristle-thighed Curlew were
seen in all areas.

Great Frigate bird

Dudley Cook (Island King) said
there were two large
breeding colonies in the interior
of the island. ~~and~~ He did not
visit either of these colonies.

Crested Tern

There must be several thousand
of this species on this island.
We saw them around all the
four lagoons & in salt flat
areas. With every flock I hear
at least one immature bird calling. The
immature call is similar to the
Sooty Tern but is more of a
racking sound. This nesting
season is over. Many of the
young were present on Cook Island, they
were almost ready to fly.

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Sooty Tern

Christmas Island

Christmas Island
Deedly Cook (later King) said
"There are more Sooty Terns
nesting on the island than any
year since he has been here."

Daddy has been here 5 or 6 years.

There were more colonies, none
area covered by nesting birds
and the density of birds in
every colony was greater. From
Northwest Point to main camp (a
distance of 5 miles) nesting birds
were 400 yds. wide. Max figured
this colony alone was 10,000,000
sq ft. There is now way I
could ~~then~~ estimate total nesting
birds without having seen the
colonies, but they must have
been 30+ million nesting birds
on Christmas ~~Island~~. At all.

Cook Island still had
large chicks running around.
Mox saw one lone bird on an
egg.

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25

Location Motu Tabu, Christmas Atoll
 Observer Frank Gill

Observer Frank Smith

Date 23 March Time _____ to _____

Weather

Miles-

Hours 1600

[illegible]

One
 egg
 967
 6

Sm Ch
 2
 1

Large Ch
 4
 4

Hawaiian Noddy Tern

1967
 Christmas Atoll
 Location Motu Upou
 Observer
 Date 23-24 March
 Weather Miles Time to Hours

SPECIES	NUMBERS	Counted	Banded	REMARKS	Nests
Laysan Albatross					
Black-footed Albatross					
Wedge-tailed Shearwater			577		
Sooty Shearwater					
Slender-billed Shearwater					
Christmas Island Shearwater	2000		562		100
Newell's Shearwater					
Juan Fernandez Petrel					
White-necked Petrel	4±	2	✓		✓
Kermadec Petrel	✓	✓	✓		✓
Phoenix Island Petrel			1015		1731
Mottled Petrel					
Bonin Island Petrel					
Black-winged Petrel					
Bulwer's Petrel					
Leach's Storm Petrel	✓	✓	✓		✓
Red-tailed Tropicbird	✓	✓	✓		✓
White-tailed Tropicbird	✓	✓	✓		✓
Blue-faced Booby	✓	✓	✓		✓
Brown Booby	✓	✓	✓		✓
Red-footed Booby	60±	31	✓		1
Great Frigatebird	24 ± 100%	12	✓		✓
Lesser Frigatebird	✓	✓	✓		✓
Golden Plover	65 ± 100%	65	✓		✓
Ruddy Turnstone	20 ± 100%	20	✓		32
Sooty Tern	✓	✓	✓		✓
Gray-backed Tern	Fly over	2	✓		✓
Common Noddy Tern	400+	✓	✓		150
Fairy Tern	150-200				62
Pomarine Jaeger	✓	✓	✓		✓
Bristle-T Curlew	0-20±	8	✓		✓
Crested Tern		18	✓		✓
Noddy Tern		2	✓		✓
Hawaiian Noddy T					1200
Blue-Gray N.T.		10			
Total Birds					
Total Sightings					
Total Flocks					
Total Species					